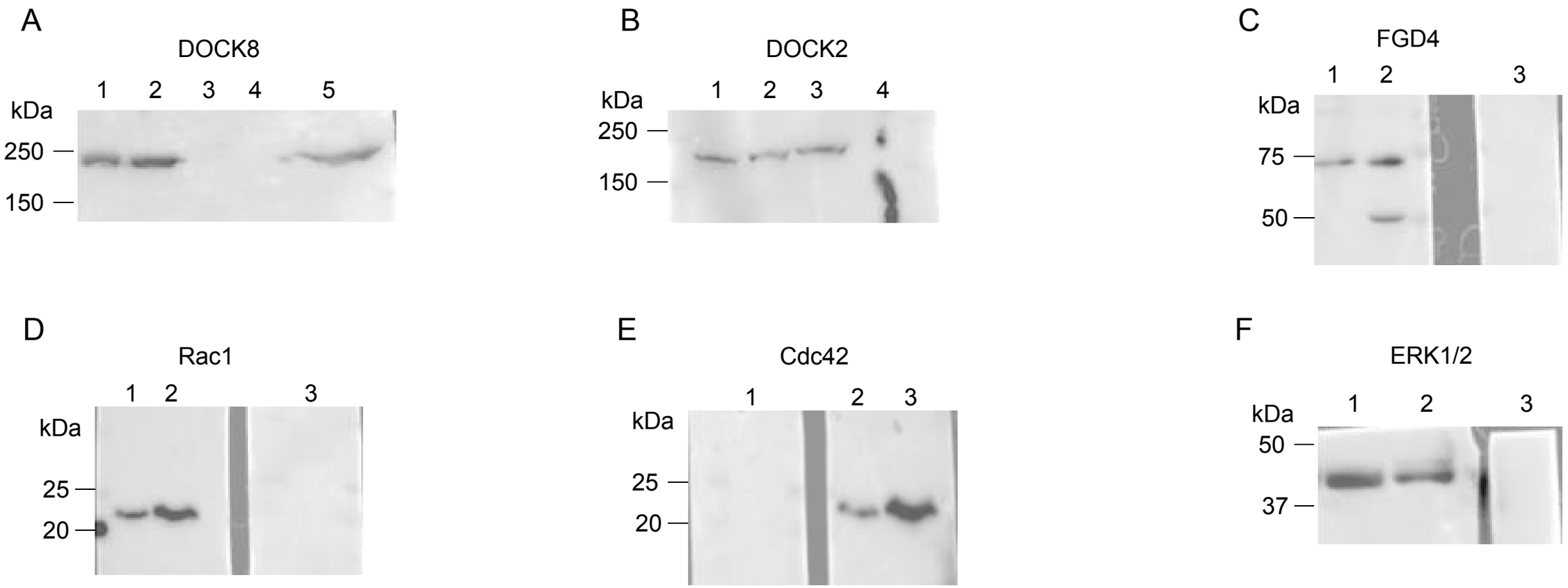
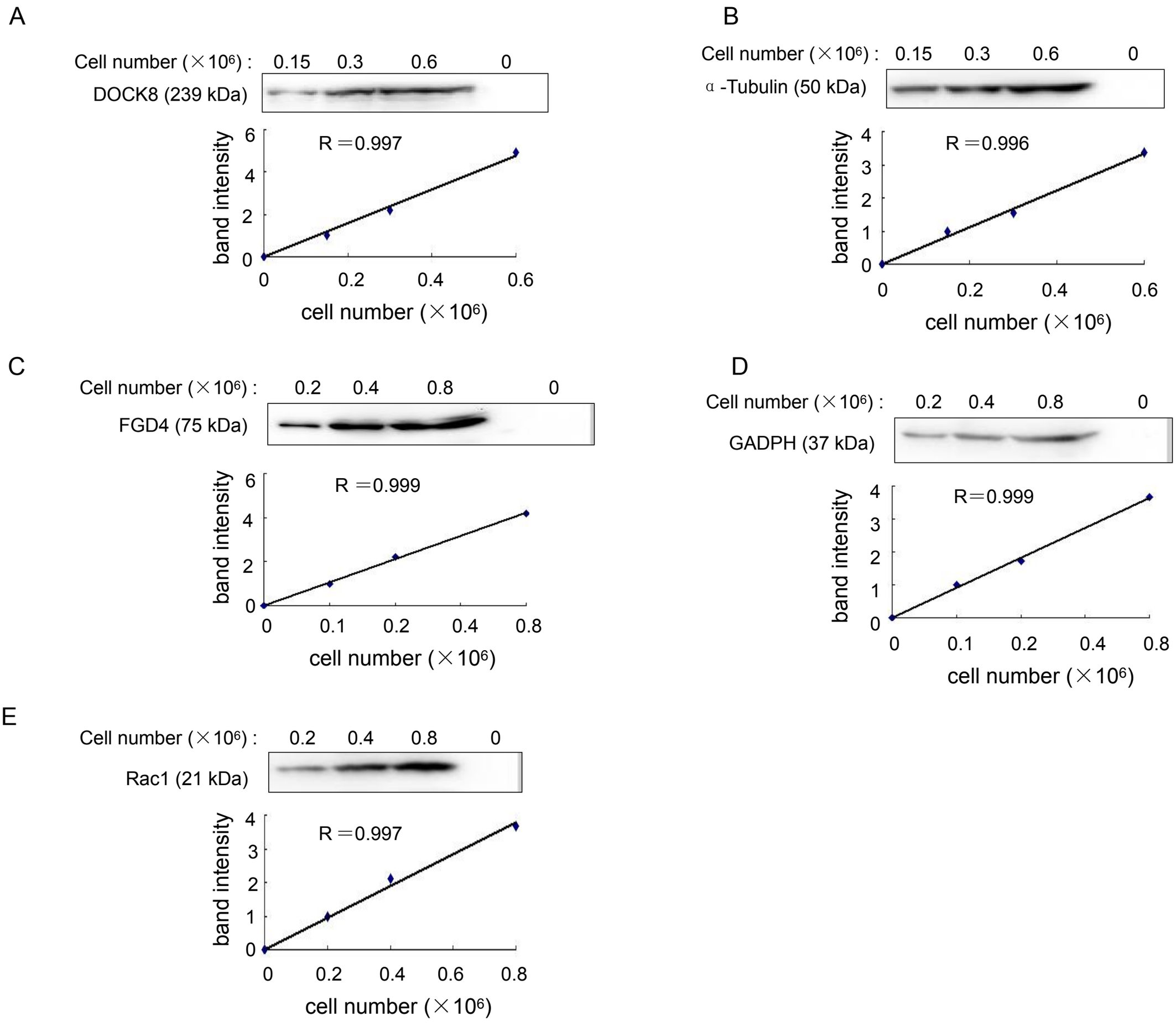
Supplemental Figure 1



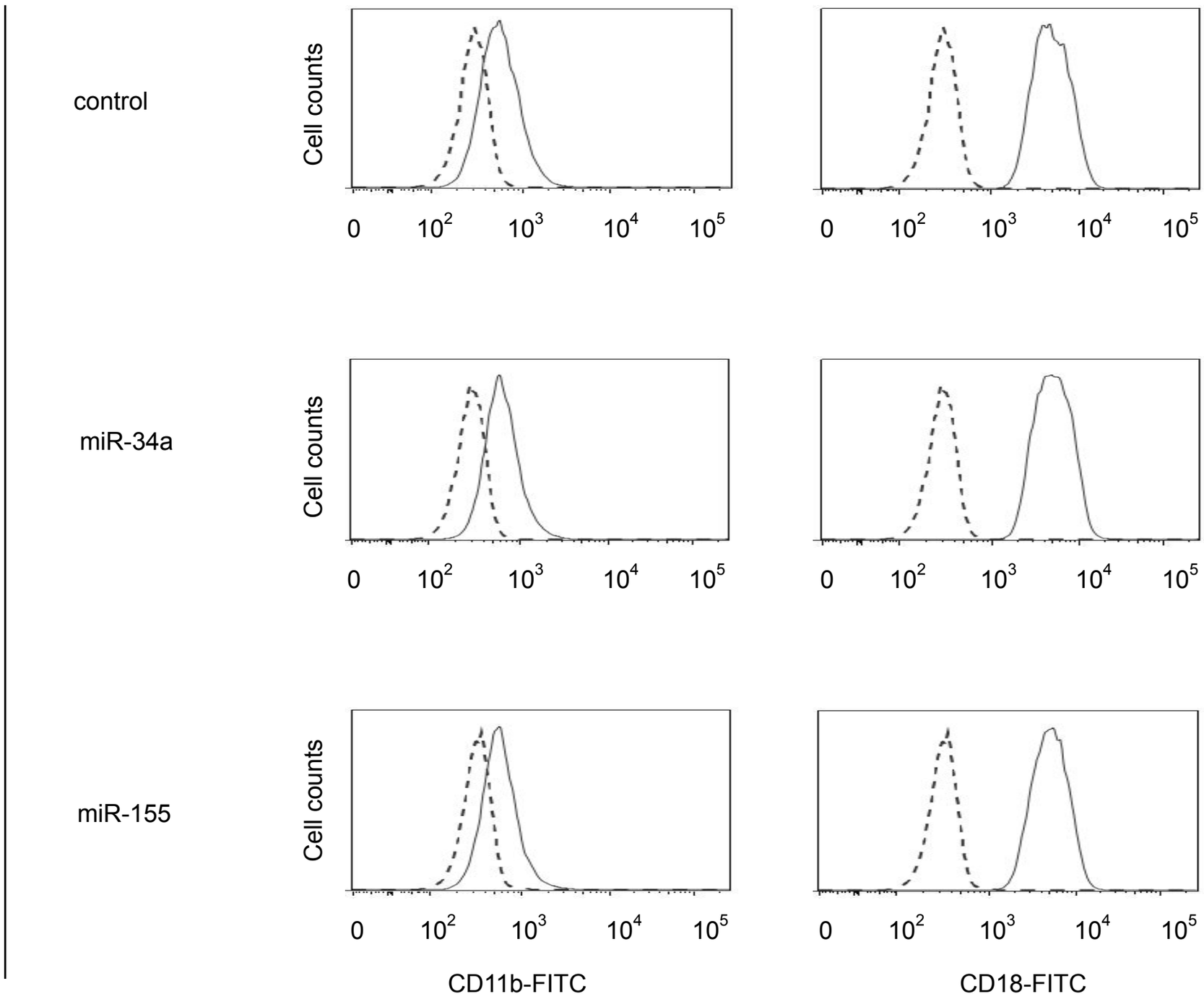
Supplemental Figure 1. Western blotting for testing antibodies. (A) DOCK8 (239 kDa). Fifteen μg protein was loaded in each well. The membrane was treated with rabbit monoclonal anti-DOCK8 (ab175208, Abcam). Lanes 1: dHL60, lane 2: undifferentiated HL60, lane 3: H9C2 (negative control), lane 4: HEK293 (negative control), lane 5: Raji (positive control). (B) DOCK2 (212 kDa). The lysate from 0.8 x 10^6 cells was loaded in each well. The membrane was blotted with rabbit monoclonal anti-DOCK2 (ab124838, Abcam). Lanes 1: undifferentiated HL60, lane 2: dHL60, lane 3: Raji (positive control), lane 4: Hela (negative control). (C) FGD4 (75 kDa). The lysate from 0.5 x 10^6 cells was loaded in each well, and lanes 1 and 2 were blotted with rabbit polyclonal anti-FGD4 (ab97785, Abcam). Lane 3 was treated with normal rabbit IgG. Lane 1: Hela (positive control), lane 2: dHL60, lane 3: Hela. (D) Rac1 (21 kDa). Each lane has 15 μg protein. Lanes 1 and 2 were blotted with mouse monoclonal anti-Rac1 (BD biosciences), while lane 3 was treated with normal mouse IgG. Lanes 1: Hela (positive control), lane 2: dHL60, lane 3: Hela. (E) Cdc42 (22 kDa). The protein from 0.5 x 10^6 cells was separated in each lane. Lane 1 was treated with normal mouse IgG, and lanes 2 and 3 were blotted with monoclonal mouse anti-Cdc42 (BD biosciences) . Lanes 1: Hela, lane 2: Hela (positive control), lane 3: dHL60. (F) ERK1/2 (42/44 kDa). Thirty μg protein was separated in each lane. Lanes 1 and 2 were blotted with rabbit monoclonal anti-ERK1/2 (ab184699, Abcam), while lane 3 was treated with normal rabbit IgG. Lanes 1-3: dHL60, Hela (positive control), and Hela. (G) AKT (60 kDa). Thirty μg protein was loaded in each well. Lane 1 was treated with normal goat IgG, and lanes 2 to 4 were blotted with goat polyclonal anti-PKB/Akt. Lanes 1: Hela, lane 2: Hela (positive control), lane 3: dHL60, lane 4: undifferentiated HL60.

Supplemental Figure 2



Supplemental Figure 2. Band intensities from different numbers of cells. To confirm the reliability of protein quantification by immunoblotting, the immunoblotted proteins from different numbers of HL60 cells were measured by ImageJ software. Band intensities were increased in proportion to cell numbers loaded in immunoblotting of DOCK8 (A), α -Tubulin (B), FGD4 (C), GAPDH (D), and Rac1 (E).

Supplemental Figure 3



Supplemental Figure 3. Effects of miR-34a and miR-155 on expression of CD11b and CD18. HL60 cells were cultured in the presence of 1.25% DMSO for four days, and miR-34a, miR-155 or control miRNA was introduced by electroporation at day 2. To measure cell surface expression of CD11b and CD18 by flow cytometry, the cells were treated with mouse monoclonal anti-CD11b or anti-CD18 with FITC (solid line) or mouse isotype IgG labeled with FITC (broken line).